

DESERT

PLANT LIFE

HAWORTHIA TRUNCATA

AGAVE--New Hope for Arthritics

CRASSULA CONGESTA

H. Herre

THE ALOES OF SOUTH AFRICA

(Review)

Reid Moran

ECHINOCEREUS PACIFICUS

George Lindsay

CARL CURT HOSSEUS

MESEMBRYANTHEMACEAE

(Review)

**INTERNATIONAL CONGRESS FOR
SUCCULENT PLANT RESEARCH**

CACTI SOMETIMES BLOOM

Member No. Eighty-four

READING AND REFERENCE

January, 1951

Desert Plant Life Magazine

Official Publication AMERICAN SUCCULENT SOCIETIES

Chicago, Long Beach, Los Angeles

The oldest magazine in the English language devoted to the study of
cacti and other succulents.

JANUARY, 1951

VOLUME 23

NUMBER 1

WHOLE NUMBER 184

DESERT PLANT LIFE. Published Quarterly by the Desert Magazine Publishing Company, 866 South Grand Avenue, Pasadena 2, California. Entered as second-class matter October 14, 1930, at the Post Office at Pasadena, California, under the act of March 3, 1879. Yearly subscription price \$1.50. In California 5 cents tax additional. Foreign countries, including Canada and Mexico, \$2.00. Single copies 25 cents.

Address all communications to Box 68, Pasadena, California

Editor: ELLEN ROOKSBY

EDITORIAL CONTRIBUTORS

ELISE BERGER

H. HERRE

DR. LEON CROIZAT

GEORGE LINDSAY

DR. E. YALE DAWSON

REID MORAN

DR. ADELE LEWIS GRANT

JACK WHITEHEAD

FIRST QUARTER



Photograph, DR. MEREDITH W. MORGAN, JR.



HAWORTHIA TRUNCATA Schoenland
From Dr. Morgan's collection, Richmond, California.

See page 18

AGAVE

New Hope for Arthritics?

Botanists are forces being added to chemists and other scientists in their effort to find new sources of cortisone.

This miracle drug developed after ten years, by chemists in Basle, Switzerland, and Mayo Clinic, Rochester, Minnesota, winning for them the Nobel prize in medicine for 1950, is bringing infinite relief and comfort to millions of arthritics the world over.

The production of this hormone has been expensive and time consuming. The basic material, ox bile was limited; there were 37 processes in its composition (manufacture) extending over a period of six months. For several years only enough could be produced for clinical experimentation upon 3,000 patients. As there are 7,000,000 sufferers from crippling rheumatism, in this country alone and that the treatment must be continuous at a price of \$200.00 per gram till last August, it was evidently important that new sources of cortisone must be found.

At the present time the U.S. government is undertaking a project to determine whether this drug may not be produced from plants, to make it available in greater quantities, and by simpler methods. Preliminary analyses have been made by commercial drug manufacturers according to Howard Scott Gentry, just returned from Washington. One of the leading research chemists, he states, in the search for plant hormones of the cortisone complex, was R. E. Marker of the Merck & Company laboratories. He and other research chemists found that sapogenins, a group of the saponins occur in four plant families. These saponins are chemically precursors of cortisone and some of these will lend themselves to fractioning or the production of cortisone. The four plant families are:

- I. Wild Yam Family. (Dioscorea)
- II. Lily Family. Yucca.
- III. Amaryllis Family. Agave, Manfreda.
- VI. Dogbane Family. (Apocynum)

The Wild Yam has already yielded a number of sex hormones.

Some of the best percentages of the sapogonins have been found in such genera as *Agave*, *Yucca*, *Manfreda*. Of some 15 *Agave* species examined thus far one of the most promising was *Agave Toumeyana* of Southeastern Arizona and along the Sonoran border.

The Federal project in the search for cortisone is generally headed by the U.S. Public Health Institute, the funds having been allocated by Congress this last summer. The general plan has been broken down in three ways:

- I. Division of Plant Exploration and Introduction is charged with procurement of all plant materials to be analyzed and tested.

2. The U.S. Department of Agriculture regional laboratory in Philadelphia makes the preliminary chemical breakdown.

3. Refined plant material then goes to the Public Health chemists for critical analysis and testing.

So it works out more or less like this: the division botanists go out and dig up the oil shale (in oil man's parlance); the oil is extracted by the regional laboratory; the U.S. Public Health Service then refines it to gasoline.

Dr. Gentry of the Division of Plant Exploration and Introduction is in Los Angeles before proceeding to Mexico where in conjunction with other members of the expedition, he will search for cortisone producing plants. He will be on familiar ground as he has made innumerable field trips to Mexico and Lower California. As former research associate of the Allan Hancock Foundation, University of Southern California, he was the author of "Land Plants Collected by the Valero III." Earlier he produced "Rio Mayo Plants," a Carnegie Institution publication.

The Huntington Botanical Gardens are cooperating and a consignment of Agave materials has been forwarded for analyses. Whether efficacy will be lessened or increased because an agave is a hybrid remains to be determined. For the present every species is to be collected in its native habitat, along with any other plants suggesting promise.

United States and Mexico have furnished plants but so have other countries. For fifteen years investigations have been carried on with *Strophanthus sarmentosus* in which a steroid occurs in the seed. This according to *Chemical and Engineering News* "would eliminate 17 steps in the present cortisone synthesis, a slaughter house product and in limited supply. This together with the low yield 0.05% obtained from its 37 step synthesis, said to be one of the most involved and complex in drug and chemical manufacture, made the supply of cortisone such an acute problem that it was being limited to research use. Even then it was \$5.670 an ounce. Very few chemists familiar with the enormous difficulties in making the synthetic drug dared to hope that there would be a decline in price very soon because it was still an animal derivative—ox bile."

S. sarmentosus grows abundantly in large parts of Africa, including Liberia where it is a perennial vine that may climb up to 80 feet. It is an ornamental garden plant here in the U.S. and is closely related to the succulent *Testudineria elephantipes* of the same Dogbane family, source of arrow poison and brews used in trial rituals.

Of the sum (\$1,700,000) provided by our government, a substantial amount was used to finance an expedition to Africa for further investigations. This proceeded first to London where *S. sarmentosus* has been grown at Kew, then to Basle, Switzerland to consult with Dr. Reichstein, Nobel prize winner, who himself has headed several Swiss missions to Africa.

This plant was brought in and put under cultivation by the government at its plant introduction gardens at Coconut Grove, Florida. Locally U.S.C. and the Arboretum have been growing it.

These larger supplies will still be months away when new sources are found. Plants must be grown and harvested preferably in the U.S. New factories must be built that can produce cortisone from the new materials, requiring perhaps 3 to 5 years.

H. HERRE
Botanic Garden,
University of
Stellenbosch, South Africa

CRASSULA CONGESTA N.E.Br.

Description in *Gardeners Chronicle* (1902) II. 171; Pole Evans in *Flowering Plants of South Africa*, t. 115. Type in Herb. Kew.—Syn. *Crassula pachyphylla* Schoenl. in *Rec. Albany Museum*, I (1903), 58, *Engl. Bot. Jahrb.* xLv, 257; also in *Trans. Roy. Soc. S. Afr.* Vol. XVII, Part 3. 181. 282.

This fine little *Crassula* is at home in The Little Karroo e.g. from Touwsriver to Ladismith, Riversdale, Calitzdorp etc. where it is sometimes found fairly abundant in several places. As it is only a small plant one has to look for it before it can be found.

The description of it as given in *The Flowering Plants of South Africa* (l.c.) gives the following details: "Closeby allied to *Crassula columnaris* Thbg. but the shape of the leaves is sufficient to distinguish it from the latter species. Plant about 9 cm. high. Stem glabrous. Leaves 1.7 cm. long up to 2.7 cm. broad, decussate, connate, transversely oblong, convex without, concave within, glabrous. Heads many flowered, 2.5 cm. in diameter. Receptacle convex. Floral bracts 0.5 mm. long, 0.75 mm. broad, linear, obtuse, ciliate. Corolla tube 3.5 mm. long, membranous: lobes 5 mm. long, 0.75 mm. broad, linear, obtuse. Filaments 2 mm. long, filiform; anthers 1.25 mm. big long, oblong. Squamae 1 mm. long, spathulate and produced into a long claw. Carpels 2.5 mm. long, tapering from the base upwards; stigma simple."

The plant is perennial but dies down after flowering. It is a true succulent plant with fleshy shoots which may occasionally form lateral branches with lateral inflorescences, but the rule is the terminal one. According to the late Dr. S. Schoenland (l.c.) "the leaves may be quite obtuse, very thick, ovate in outline, subhorizontal, or they may be sublanceolate, acute and deflexed, but transitions between these extremes are found. The leaves are grey-green in colour, loosely arranged and rounded on the back. The flowers are small and white." They have like most of the other *Crassulas* an agreeable smell.

It is a fine little succulent which catches the eye, if not by flowering, by its decussate leaves. Generally it does not form clumps but the plants are single stemmed and when flowering are about 5-6-7 cm. high. In its natural environment one usually finds several plants growing near each other; branched ones are rare. The plants are not at all difficult to cultivate and after flowering enough seeds are formed to prevent the plant from dying out.

Photograph, H. HERRE



CRASSULA CONGESTA N.E. Brown
University Botanic Garden
Stellenbosch, C.P., South Africa
December 1949

FOR SUCCULENT RESEARCH

- I. International Congress for Succulent Plant Research at Zurich
- I. Congres International pour la Recherche des Plantes grasses a Zurich
- I. Internationaler Kongress der Sukkulenten-Forscher in Zürich

27. - 30. September 1950

DECISIONS

The participants of the Congress were in accord that:—

- a). Co-operative study-work on an International basis is desirable and to be fostered,
- b) Immediate action be taken to create a financial basis for such co-operative work,
- c) Mr. A. J. H. Buining, Holland, be given the mandate to contact the representatives of the botanical section of the "International Union of biological Sciences" so as to secure our acceptance as a Special Commission and the availability of the necessary financial means, (UNESCO),
- d) Any linking up with the "International Union of biological Sciences" shall not preclude attempts to link up with and obtain support from similar institutions,
- e) An International Study Organisation be set up based "in principle" on the lines of the attached schematic drawing submitted by Mr. H. Krainz, starting from the word "Forschungsgemeinschaft" in section 2, but excluding the suggestion for a commission on system and nomenclature,
- f) Those present declared themselves to be the Founder Members of a new Organisation to be called:—
International Organisation for Succulent Plant Study
Organisation Internationale de Recherche sur les Plantes Succulentes
Internationale Organisation fuer Sukkulentenforschung
and subsequently referred to as IOS.

The members of IOS unanimously agree that:—

- 1. IOS shall make every endeavour to increase the number of its members both in regard to individuals and organisations.
- 2. The first task of co-operative work shall be the compilation of an up-to-date generic list for cacti and that this work be entrusted to Prof. Dr. E. Werdermann, Berlin and Mr. Hans Krainz, Zurich. A subsequent task shall be the compilation of an index of species (including the synonyms). After completion and adjustment of these lists by

others able and willing to cooperate the ultimate list shall be sent to all appropriate parties wanting them.

3. The card-index of Mr. H. Jacobsen, Kiel, which is already in existence, shall form the basis of lists of generic and specific names for succulent genera other than cacti, Mr. Jacobsen already having agreed to prepare the necessary lists for further submission. These lists shall be treated in the same manner as the cactus-list mentioned in resolution 2.
4. An early task of the IOS shall be the publication of a Repertorium Plantarum Succulentarum.
5. Citations of new descriptions of succulent plants published since January 1st 1950 shall be published periodically by the "National Cactus and Succulent Society" (Gt. Britain).
6. The seed collection already established in Zurich shall be used by the IOS and its members for scientific purposes and every effort shall be made to augment and supplement this collection. Additional centres shall be created and supported as conditions permit.
7. Members of the IOS undertake to secure and forward one copy of any of their new publications to the appropriate Editors of the lists of generic and specific names as well as to the "National Cactus and Succulent Society".
8. In order to make new descriptions which have been published by authors outside the IOS available (as set out in 7) Members of the IOS undertake to procure and forward such descriptions, in so far as they have been published in their own respective countries and have been brought to their notice, in the same manner as set out in 7.
9. It is recommended that importers and authors send cuttings of any new species for cultivation *under glass* to:
 - a) Städtische Sukkulentensammlung, Mythenquai 88, Zurich 2 (Switzerland)
 - b) Botanischer Garten, Amsterdam (Holland)
 - c) Botanischer Garten, Kiel (Germany)and for *open-air* cultivation to:
 - a) Jardin Exotique de Monaco (Monte Carlo) (from 1952 only)
 - b) Jardin Botanico "Marimurtra" Blanes, Prov. Gerona (Spain)
 - c) Mr. J. Marnier-Lapostolle, "Les Cedres", St. Jean, Cap Ferrat (Alpes Maritimes) Franceand/or any other centres to be recommended later.
10. Members of the IOS shall endeavour to ensure that all "type" material is in due course placed in the care of scientific institutions and that the IOS is informed of any such ultimate location.
11. In each country the appropriate society or institution shall nominate one member of the IOS and of dealing with day to day business of the IOS.
12. Delegates of the IOS are requested to keep each other informed regarding new publications and recent developments.
13. Delegates of the IOS are empowered to prepare in co-operation with each other, any business for consideration at the next Congress.

Additional notes about
ECHINOCEREUS PACIFICUS (Engelm.)
Britton and Rose

The December, 1948 number of Desert Plant Life contained an excellent article by E. Yale Dawson about little known *Echinocereus pacificus*. In his article Dawson reviewed the botanical history of the plant, and reported his own investigations of the distribution and probable relationship of *E. pacificus* with other species in its genus.

I have had this species under observation for some time and can add a few notes of possible interest concerning it. I have collected *E. pacificus* from time to time during the last fifteen years, but specimens were not found in flower until recently, nor did the plants bloom in cultivation. On May 11, 1948, Reid Moran and I found a single late flower—and it was so insect eaten as to make our photographs valueless. On March 23, 1950, I again visited San Carlos Canyon, hoping to find flowers, and this time was amply rewarded. Every clump seemed to be in bloom, with many of the larger bearing over 100 open flowers! As Dawson pointed out there is considerable variation in habit, armament and size of the plants within the population. This was particularly true of the flowers.

The first clump examined (*Lindsay 1840*) was located on the north wall of San Carlos Canyon about three miles below the Hot Springs. The plant was about two feet in diameter with about 100 stems, these bearing over 150 buds and 13 open flowers! The flowers were uniform in size, 2 cm to 25 mm in diameter and 4.5 cm long overall. The flowers on this plant had yellowish cream perianth segments with a deep orange midstripe, making a distinctly orange blossom. Perianth segments were 5 mm wide and 10 mm long, joined at the base to form a distinct tube 15 mm long above ovary. Stigma lobes were 9-11, green, 5 mm long; style light green, 2 cm long; filaments and anthers white!

The second plant photographed (*Lindsay 1841*) was only a few feet from the first. In this clump the flowers were crimson rather than orange, and the filaments and anthers were a bright purple! Stigma lobes were 5-8, green, and in general the flowers were otherwise the same, except that those of the later plant opened more broadly.

A third plant was studied and photographed, this one located about one mile above San Carlos Hot Springs (*Lindsay 1843*). It bore deep red flowers, green stigma lobes and light purple or magenta anthers and filaments.

While several of the orange flowered plants were observed, the deep red or crimson form was much more abundant. As I mentioned, some clumps bore over one hundred open flowers. This was on March 23, 1950. The flowering season has been reported as mid-winter, and the type specimen,

CLOSE UP OF THE
ORANGE FLOWERS

(LINDSAY No. 1840)

Photograph, GEORGE LINDSAY



JANUARY, 1951

collected by C. R. Orcutt on January 26, 1883, bears a flower (Herb. Univ. Calif. No. 172808). The 1950 flowering season was two months later, and it had apparently been later in 1948, as we found one flower remaining as late as May 11, and undeveloped fruit indicated the bloom period was just past.

Dawson mentioned in his article that Coulter (Contr. U.S. Nat. Herb. 3:397, 1896) had attributed specimens collected by Brandegee in the Sierra San Pedro Martir, and also from the Comondu Cliffs several hundred miles south, to *E. pacificus*, but that these specimens were missing. Reid Moran recently located the Brandegee material in the Herbarium of the University of California. Three separate collections are mounted on the same sheet. One, *Brandegee s.n.* May 5, 1893, from San Pedro Martir, is complete with sections of stems, a bud, and flowers. This specimen is without doubt *E. pacificus* as already noted by Britton and Rose (The Cactaceae 3:12, 1922.), which indicates an unusual altitudinal range for the species. The second specimen on the sheet, *Brandegee s.n.* March 23, 1889, from Comondu Cliffs, is sterile and consists of two fragments of stem. The scanty material represented could well be the same species, as the spine number, size, and arrangement is much the same, but as Britton and Rose (loc. cit.) indicate it may belong elsewhere. A note on the label says "heads not dense and sometimes hanging from rocks." There apparently have been no other collections of the plant from the Comondu area, which is about 350 miles southeast of San Pedro Martir, and over 450 miles southeast of the type locality.

On May 9, 1941, Ira L. Wiggins collected and photographed a flowering *Echinocereus sp.* (Wiggins 9822) at "La Huerta trail to Cajon", at 7,000 feet elevation in the Sierra San Pedro Martir. This plant has flowers which compare closely with those of the type of *E. pacificus* in both size and form, but the perianth segments were "orange yellow, bronze on the outside." Color prints were made from Wiggins' photograph and compared with color prints of the orange flowering specimens in San Carlos Canyon (Lindsay 1840), and from flower characteristics one could consider them to be the same. However, the spines of Wiggins' plant are very much longer, to 7 cm, and are inclined to twist as do those of *E. mojavenensis*.

Dawson has suggested the importance of a better understanding of the distribution of *E. pacificus* in order to establish its relationship with *E. polyacanthus*, a similar species which occurs in the oak belt of southeastern Arizona at elevations of 3,500 to 5,000 feet. Another species, *E. munzii* Parish, will have to be considered in these relationships. *Echinocereus munzii* is a mountain species which occurs in the San Bernardino and San Jacinto ranges of Southern California and into northern Baja California, at elevations between 4,000 and 6,000 feet. Parish considered *E. munzii* to be very close to *E. mojavenensis*, which occurs to its north. An examination of the type specimen reveals a plant very close to *E. mojavenensis* in body morphology, but with flowers tending toward the larger form with a short tube characteristic of *E. engelmannii*. The description of *E. munzii* (Bull. S. Cal. Acad. 25:48, 1926) states that it has been collected in Baja California, 47 miles southwest of Tecate at an elevation of 4,200 feet (Munz 9612).

THE ALOES OF SOUTH AFRICA

THE ALOES OF SOUTH AFRICA by G. W. Reynolds. xxiv + 520 pages, 572 figures, 77 color plates. Johannesburg, South Africa. December 1950. £ 3 13s 6d*.

Mr. Reynolds, living in South Africa, became interested in *Aloe* some 20 years ago. The last comprehensive treatment of the genus was that of Berger in his revision of the tribe Aloineae (Liliaceae) in 1908. Though Berger's treatment was thorough and made the best use of the materials available, he had no opportunity to study the plants in the field. It is therefore not surprising that in South Africa Mr. Reynolds found plants that did not agree with the species as described by Berger. As a result, Mr. Reynolds soon found himself engaged in a study of the genus. In pursuit of *Aloe* he has since travelled over 100,000 miles in the Union of South Africa, South-West Africa, Bechuanaland Protectorate, and Portuguese East Africa. He has photographed the plants in black and white and in color, and he has written descriptions in the field. Thus he has been able to prepare a detailed and profusely illustrated monograph based on an intimate field knowledge of *Aloe*.

Part I, comprising the first hundred pages of the book, gives an account of botanical explorations in South Africa and of the bibliographic history of *Aloe*. It is illustrated with reproductions of many early maps, plates, and pages of description.

Part II is a systematic treatment of the genus as it occurs in South Africa. The classification into sections, subsections, and series rather closely follows that of Berger, with the addition of a few new groups. The genus is divided into ten sections, eight of which have species in South Africa. Two-thirds of the South African species fall in the section Eualoe, which is divided into 5 subsections and 31 series.

No key is given to the sections and series. The author explains that, because of the great variation within species and the extent of modification when plants are cultivated, it is impossible to devise an infallible key. As a further source of difficulty he might have mentioned the occurrence of many natural hybrids. No one will deny these difficulties, least of all the reviewer, who is faced with a similar problem, if on a somewhat smaller scale. However, the user of the book would prefer a fallible key to no key at all. Even if it worked perfectly for only ten percent of the specimens, a key would greatly assist in the identification of many others. For with any specimen, undoubtedly *some* dichotomies would help to eliminate *some* groups from consideration. In place of a key there is a synopsis of the groups, including also those not native in South Africa. This synopsis

*(£10.33 exchange rate, March 5, 1951.)

should prove helpful, but it would be more so if the section Eualoe and its five subsections were characterized rather than merely named.

In the systematic treatment, again, all sections and series are included, whether or not they have species in South Africa. Since the information on plants of other regions is included at no extra charge, it is perhaps unfair to the author to point out that he might have included for each group an approximate statement of the number of species and of the extralimital distribution. One wonders, for example, how many of the groups are known only from South Africa.

For each section except Eualoe, and for each series of Eualoe, there is a key to the species.

One hundred and thirty-two species are recognized for South Africa, including only those known to occur there today, others being listed as doubtful. Each species receives detailed treatment, with synonymy including pre-Linnean names, a full description, a list of specimens examined, statements of the type locality and the distribution, a list of natural hybrids, and miscellaneous information concerning variation, distinguishing characters, flowering period, history, medicinal uses, native names, etc. The number of natural hybrids seems remarkable: many a species has 4 or 5 listed, and one has 22. The hybrids are not formally named, nor, for the most part, are they described in detail.

Over half the species are illustrated by full-page color plates from natural-color photographs. In quality these range from very good to truly excellent. In addition there are 572 black-and-white photographs, many showing plants in the wild, others showing plates from earlier works. With each species is a photograph in natural size of a series ranging from buds to withered flowers. To find fault with the illustrations in this book would be unreasonable; but the carping critic might point out that there are really more illustrations than necessary. Often in addition to a color plate there is a black-and-white photograph of a plant of the same species practically identical in appearance. And the author has even included a few pictures of places *near which* species of *Aloe* occur.

Based on extensive field work, this book adds much new information concerning *Aloe* and presents a record of the plants documented with color plates of outstanding merit. At the same time the author has studied the older works on the genus and apparently has succeeded in identifying most of the older names with wild plants. Thus "Aloes of South Africa" is a synthesis of information from all sources and undoubtedly will remain for many years the basis for all further studies.

REID MORAN

University of California, Berkeley

MESEMBRYANTHEMACEAE

MESEMBRYANTHEMACEAE by H. Jacobsen, O. H. Volk, H. Herre. 128 pp. Illustrations 32. Eugen Ulmer (14a) Ludwigsburg, Germany. DM 5.80 (\$1.50). 1950.

How people are attracted to plants deviating from the normal and go to great pains to grow them, has been a common observance. Since a horticulturist's skill is often judged by his ability to cultivate these wonders of the wild so abundantly supplied by nature, is it surprising that such a preference for them exists?

This predilection is shown in the great number of known species within the family, increased to an amazing extent, by the advent of the automobile and other means of penetrating new territory. Where hardly more than half a century ago only a few hundred species existed, in this booklet being considered there are listed 2400 including synonyms distributed among 115 genera reduced from the former 150.

At the same time this mass of material has made an all over picture very difficult to project clearly.

A most drastic change has been made. Where formerly *Mesembryanthemums* were members of the Aizoaceae Family they have now been taken out and established in a family of their own, *Mesembryanthemaceae*. The authors do not claim this was their idea originally; they give credit to Lowe in "Flora Madeira" 1868.

Several comprehensive works dealing with this family lie in manuscript. It can readily be understood that such extensive treatment with its hundreds of pictures, figures, photographs and drawings is very costly to publish and so far impossible.

The present small, attractively illustrated book fulfills a real need. It treats of the forms and growth habits, soil conditions and cultural requirements, geographical distribution.

Hybridization with these plants is not recommended as no improvements have ever surpassed nature's original workmanship. Many other discussions equally provocative are found here and there.

When Louisa Bolus' last book came out, "*Mesembryanthemaceae*" was already in press so her findings are not as adequately credited as might otherwise have been the case.

All the more credit to the publisher for undertaking the present task. Heft 84 "Garten und Weinbau."

The authors are well known specialists; H. Jacobsen for his monograph "*Mesembryanthemum*" (Fedde Repertorium, 1938) and 2 supplements (1939). Dr. O. H. Volk is a university botany professor who with Mr. Herre was interned in South Africa when the war broke out; they spent the time to good advantage working on *Mesembryanthemums*. The latter by the way being our own DPL contributor for many years.

It is a pleasure to be able to recommend a book so well authenticated, at a price so reasonable.

H. H.

HAWORTHIA TRUNCATA

(*Frontispiece*)

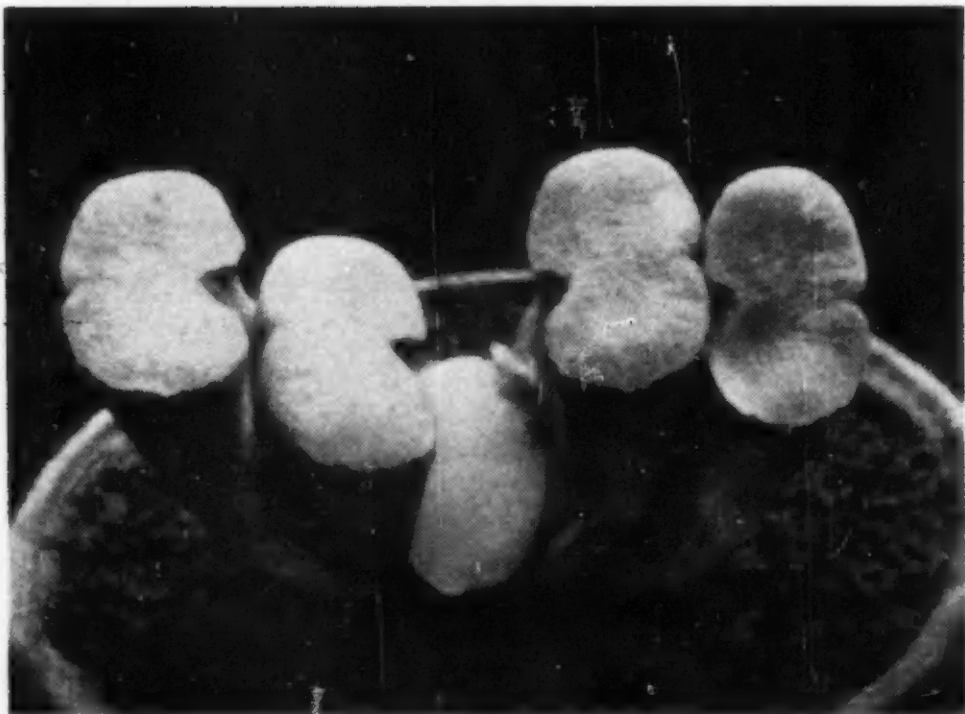
A plant that has everything—beauty, health, longevity, scientific care, unstinted admiration from all who see it and an interesting history besides.

When Wm. Triebner sent it from South Africa where he collected it in its native habitat, he declared it to be the largest specimen he had ever seen, judging it to be about twelve years old.

That was twenty years ago when it became part of Dr. Morgan's choice private succulent collection.

A well qualified horticulturist describes this *Haworthia truncata*. He says the leaves are broader, wider than usual, a different darker green and the translucency clearer than ordinarily seen.

Photograph, A. J. A. UITEWAAL



HAWORTHIA TRUNCATA forma CRASSA Poelln.

References to section *Fenestratae* containing *Haworthia truncata* and *H. Maughani*.

DPL January 1944-12: J. R. Brown.

DPL May 1947-78: A. J. A. Uitewaal.

Switzerland

Establishment and care of a cactus collection by H. Krainz, titles the current publication on this subject.

As a reprint from "Swiss Garden" the organ for the country's horticulturista, an attractive booklet of sixteen pages results, especially with the added 17 illustrations. Of the latter an unusual view of a roof garden in a metropolitan area is shown.

Reiterating familiar admonishments along with the newest methods of successful treatment there seems little excuse for failures at any point. There are twelve "commandenta" on the last page, just before the index—two other rarities in a work of such modest proportions. The book may be "all Greek" to you for it is in German.

England

The Cactulant, a bulletin put out by the London Cactus Club, is nearing its third year, and seems a lusty youngster. Much of the contents have been reprints from older magazines but there are plenty of original articles in the 8-10 pages to maintain a balance of varied interest. With a fresh viewpoint which it is hoped will be permanent.

From the *Journal of Great Britain* we learn that Professor J. Borg's "Cacti" is to appear in the near future in a new and revised edition. Formerly put out by Macmillan and Co., London, this time Blanford Press, Ltd., will be the publishers. It will consist of 520 pages with 64 illustrations, two to a page, a much larger edition.

This same January number presents a novelty; two people have articles on the same subject "Spines". It is quite some time since there has been any discussion on this subject. For or against, each side still is firmly foxholed.

Another feature: "Variability within *Haworthia Reinwardtii*" with seven photographs by A. J. A. Uitewaal will be welcomed by insatiable *Haworthia* students.

FOOD AT A LOW PRICE

Are you an escargot fancier in the better restaurants? Then you have no worries. A single snail can give rise to 11 billion snails in five years.

IMPORTS

Cacti may be sent to England only from Holland, France, Denmark and Belgium and then only subject to license import by nurserymen with working acreage. Under exceptional circumstances dealers may be granted permission if they can prove that the cactus plants are required for export to the dollar market.

DO YOU WANT TO HELP

I am seeking to form a group to go out camping on the public lands, and improve the plant life by pruning the dead wood, straightening trees, and perhaps sowing fruit tree seeds at certain places, and if possible, taming the wild animals by kind treatment. Any help in this or aid where I may inquire next would be welcome.—W. N. M., General Delivery.

P.S. I am a gardener.

Publisher's Announcement

Beginning January 1951 DESERT PLANT LIFE MAGAZINE will be published as a quarterly.

Militating against the present monthly system was the poor condition of the magazine arriving at its final destination, crumpled, rumped and forlorn. Conflicts in the mailbag going to Australia, Indonesia, the Philippines, India, Turkey, Armenia, on through the "Iron Curtain" were a great tax on its material structure especially around the holidays and during strikes.

Obviously the remedy was a thicker and heavier periodical, to be achieved by the new proposed plan.

In 1929 when DPL began its career as the only magazine in the English language on the subject of succulents, \$1.50 was set as the yearly subscription price. This was sufficient to cover production costs (\$1.49) with a margin of 1 cent profit, surely not an excessive return under our capitalist system. But twenty-two years, a depression and two major wars have absorbed the surplus.

Is anyone paying the same now for any article that he did when he purchased it in 1929? Yes, a subscription to DPL. He is still getting the most printed matter for his subscription.

The printer has increased the price eight times. The mailing costs have doubled.

The subscription rates could have been raised but the belief existed that a magazine of this type and at this price could render a greater service by continuing its present policy. This conviction has been strengthened throughout the years by an encouragement almost universal from readers.

With a preference for articles of lasting interest there have come writers whose sympathies lay with the purposes of DPL and whose contributions have made possible its continued field of usefulness.

As a quarterly, DPL will be in congenial company: *Fern Journal*, *The National Horticultural Magazine*, *Botanical Gazette*, *Ecology*, *Economic Botany*, *Landscape Architecture*, *Plant Physiology*, *The Journal of South African Botany*, last but not least there are the cactus publications from Great Britain.

CACTI SOMETIMES BLOOM*

Are you a photographic cactophile? By that I mean, are you a cactophile who photographs his plants? . . . I assure you photographing cacti is extremely difficult. It is not so much a question of what to do with the camera or the subject, but to get the camera to the subject, or conversely, to get the subject to the camera. It is generally agreed I think, that cacti are only photographed whilst in bloom, or if not in bloom, only if they are freaks (or shall I say, more freakish than usual). It is this first category I wish to deal with, the photographing of cacti in bloom.

Dis you know that most cactus flowers are very camera shy. To illustrate this I will quote a recent experience of mine. To begin with I am not a collector of long standing, I have only completed my first year in that happy state known as "cactophilia". Therefore when one evening last week I returned from the office feeling like a tired business man, I turned to my cacti for consolation. At my first glance I realized that the 5th October 1950 had become a red-letter day. There it was, a bloom, and in October too. Having returned to the house giving, I am told, a creditable imitation of a Red Indian, or a madman, and having dragged everybody from far and near to see "my bloom", I settled down happily to my evening meal (corned beef and cold potatoes, because of the gas strike). It was then that I realized, the permanent record of "my bloom" would be essential.

I went to my greenhouse. Now, my greenhouse is small, I admit that. 18 inches long, 12 inches wide and 15 inches high; some people call it a cloche, but it is my greenhouse. By the light of a guttering candle I removed the specimen from the greenhouse and brought it indoors. Yes it certainly looked beautiful. I heard someone say "Just like a dandelion", but I ignored them. Upstairs I went, rummaging for the camera close-up lens and photo-flood lights. At last I found them, I spent twenty minutes preparing the apparatus. Then came the big moment, I put the plant on the spot marked X, and looked through the view finder. The bloom was nowhere to be seen. Yes, it had closed up for the night. I never realized that cacti belonged to a trade-union before, that prevented them from flowering in the evening. Still I was not beaten, I turned on the lights to simulate the sun and moved the electric fire nearer to provide a little extra warmth. The only result was that the flower closed tighter than ever. Amidst howls of laughter and yells of derision, I put back the plant in the greenhouse, and packed my photographic apparatus away.

Next day I tore home from the office and arrived half an hour earlier than usual. This brought forth the question "What is the matter, have they given you the sack?" Without deigning to reply, I went to the greenhouse.

*Reprinted from *The Cactulent*, London.

Too late, the flower was there, but it was shutting up. In the words of the villain of a Victorian melodrama "Bah! foiled again". The next day was Saturday, the week-end, two whole days in which to photograph one little flower, enough for any man surely, but as I have already said, my cacti are steadfast trade-unionists. I might have realized that they only bloom a five day week.

At half hour intervals during the hours of daylight throughout the week-end, I made my way to the greenhouse. It was of no use, always it was tight shut. You will now realize that if you wish to photograph your plants in bloom, you must be able to camp in the greenhouse (or in my case, outside it) throughout the normal working week, because it must be realized that as far as cacti are concerned, the five day week has come to stay.

To be serious for a moment, it is a good idea to photograph each of your plants about once a year. In most cases winter would be the best time as growth has stopped then. One photograph each year is a better record of growth than pages of written description (and much easier), if like me, you are never quite sure what to call various parts of the plants. Of course if you are one of those fortunate people who have hundreds of plants, it is out of the question to photograph them all, but what about your favourites? After all, people have their children photographed periodically to show the growth of the little wretches, therefore if children, why not cacti. I shall start photographing mine about Christmas. (Cacti not children.)

CARL CURT HOSSEUS (1878-1950)

From Cordoba, Argentina comes the report of the death of Prof. Dr. Hosseus, author of "NOTAS SOBRE CACTACEAS ARGENTINAS."

When this work appeared in 1939 it was considered of such importance that the Deutsche Kakteengesellschaft gave over a whole issue, 55 pages, of "Cactaceae", its year book to discussion, Curt Backeberg in charge of the opposition.

Besides being an author, he collected bromeliads, lichens, tillandsias and cacti, enriching the private and botanic collections of Europe. *Gymnocalycium Hossei* (1929) introduced by Fr. Ad. Haage Jr. is one of his discoveries. Much later an important *Tephrocactus* was sent in by him and is still awaiting description.

Photograph, WILLARD



In the Colorado Desert, California.
The Fairy Pool, Murray Canyon, Palm Springs.

THE CACTUS JOURNAL OF GREAT BRITAIN

20 Pages - Informative Articles - Well Illustrated

Published quarterly. 12 Shillings a year with membership 21 Shillings
Send subscriptions to Box 68, Pasadena, California or to
THE EDITOR, 7 Deacons Hill Road, Elstree, Herts, England

THE CACTI OF ARIZONA

By DR. LYMAN BENSON

148 pages of text, 37 plates including 5 colored plates. Gives much helpful information on soil, water and light requirements for growing cacti. An up to date reclassification of all the species and varieties of cacti growing in Arizona. (1950) Bound. **Price — \$4.00.**

BOTANICAL BOOKS, 3066 Georgia St., Oakland 2, Calif.

NOTES ON MESEMBRYANTHEMUM AND ALLIED GENERA by H. M. L. Bolus. Part III, pages 189-236. Contains 7 pages of colored plates, picturing some 48 species of Conophytums. 1950. **Price — \$3.75.**

(Review in Desert Plant Life, November 1950)

BOTANICAL BOOKS

3066 GEORGIA ST., OAKLAND 2, CALIFORNIA

CRASSULACEAE

By ALWIN BERGER

Sonderdruck aus den NATURLICHEN PFLANZENFAMILIEN
Zweite Auflage

\$10.00

DESERT MAGAZINE PUBLISHING COMPANY

CONTRIBUTIONS

FROM

The U.S. National Herbarium

WASHINGTON

GOVERNMENT PRINTING OFFICE

DESERT MAGAZINE PUBLISHING COMPANY

Box 68, Pasadena, California